

13. Inboard Aileron Hinge



Section Overview: To correctly install the inboard aileron hinge.
Required Parts: 2 of inboard hinge ALW-0062, 2 of Bearing PN63195K63.
Required Hardware: 4 of AN3-6A, 8 of AN960-10, 4 of AN365-1032A.
Required Tools: 1/8" bit, 3/16" bit, bending tools, vise clamps, assorted clamps, assorted scrap aluminum for jiggging.
Required Conditions: None
Required Skills or Training: Ability to follow directions, use of simple hand tools.

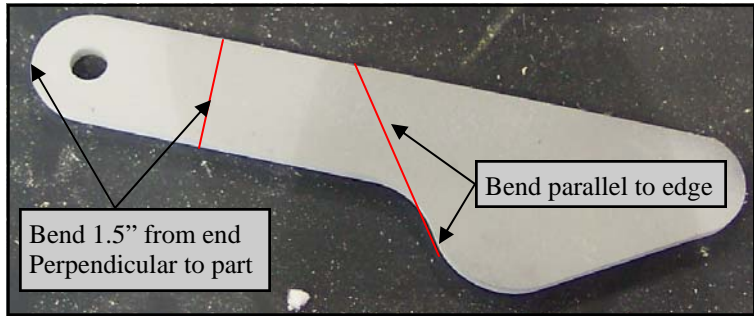
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Note: Section 12 "Outboard aileron hinge installation" should be accomplished prior to this section. It is convenient to leave the jiggging in place and continue with this section after accomplishing section 12.

1. Locate the 2 flat hinge brackets ALW-0062 from the kit.
2. These components are flat and will have to be bent to shape. This will take some time and pacticenes. So bend a little at a time until you get to the shape you want, bending the part back will weaken the material and you will need another part.

3. If you have taken you jiggging apart you must properly jig the aileron before continuing. Refer to the picture and explanation from section 12 to do so.

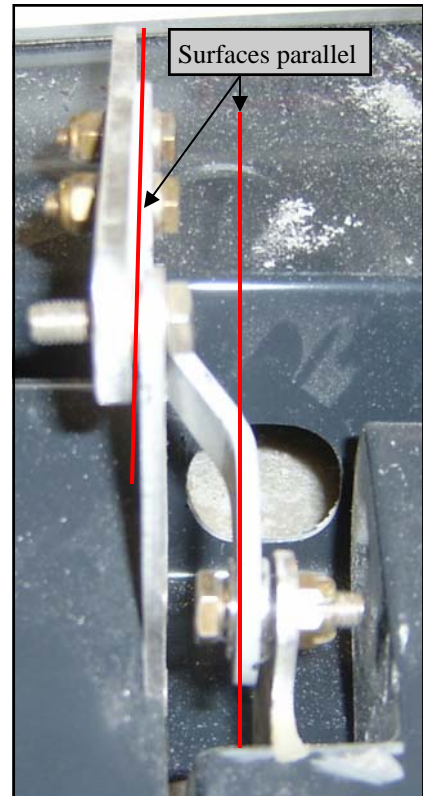
4. ALW-0062 must be bent to match the pictures on this page. There are no specific dimensions for the amount of bend due to differences in aircraft.



5. We prefer to use a vise with small pieces of wood with radius edges holding the bracket when bending.

6. Make the bends a little at a time. It is not recommended to bend the part back as it an work harden and weaken the bracket.

7. The bracket will be correct when the large flat mounting end is clamp firmly to the flap bracket and the end with the bearing or hinge point to with in 1/16" of the aileron bracket and is parallel to the flap bracket. Use the picture as a reference.

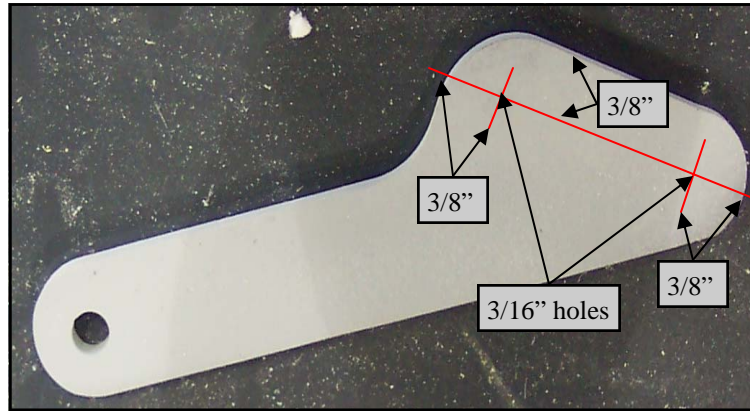


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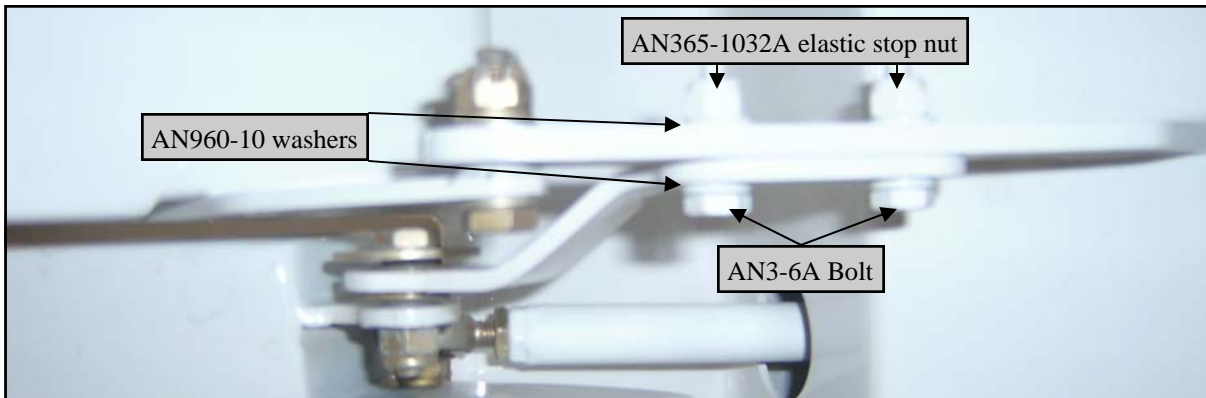


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8. Drill the bracket mounting holes next.
9. Draw a line 3/8" from the edge and parallel to the edge.
10. On this line measure in from each end 3/8".
11. At these points drill 1/8" holes.
12. Press the radial bearing PN63195K63 into the 5/8" hole in the end of the hinge. Use the same method as with the out board hinge from section 12.
13. Put the hinge in place and temporarily bolt it to the aileron
14. Use a clamp to securely hold the other end to the flap bracket as shown in the photo.
15. Match drill the 1/8" holes in the hinge to the flap bracket.
16. Remove the part and drill all 1/8" holes out with a #10 bit (3/16" will do).
17. DE-burr the holes for final install.



18. Install the aileron hinge to the flap bracket using AN3-6A bolts. Secure with AN365-1032 nyloc nuts and enough washer to allow the nut to tighten and show 1.5-3 threads of the bolt thru the nut.



19. You assembly should look similar to the photo above.
20. Repeat these steps for the other side.